NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

FACT SHEET

(pursuant to NAC 445A.236)

Applicant: Beverly Hills Dairy
A. K. Coral Cay Trust
P.O.Box 70
Amargosa Valley, Nevada 89020

Permit: NEV2006504

Location: Beverly Hills Dairy
950 W. Amargosa Farm Road
10.9 miles west of State Highway 373 on Amargosa Farm Road
Amargosa Valley, Nye County, Nevada 89020

Township 16 S, Range 48 E, Section 20 MDB&M
Dairy - Latitude: 36° 33' 50" N; Longitude: 116° 36' 23" W
Land Application Field- Latitude: 36° 33' 50" N; Longitude: 116° 36' 44" W

General: The Applicant has applied for a water pollution control discharge permit, NEV2006504, to discharge manure and process wastewater from the proposed Beverly Hills Dairy in Amargosa Valley. The proposed permit will authorize the discharge of these materials to groundwater via land application and irrigation in accordance with a Division approved Nutrient Management Plan (NMP). The facility is defined as a concentrated animal feeding operation (CAFO) because the dairy has been designed to confine at least 700 mature dairy cows for 30 days or more in a 12-month period in an area devoid of vegetation during the normal growing season.

The 387-acre property, formerly the Buchanan Ranch, is owned and is proposed to be developed and operated as a dairy by the Applicant. The property includes the 287-acre field #19, the dairy site, at the intersection of Amargosa Farm Road and Saddleback Road and the 100-acre field #11 located approximately 2 miles east of field #19 on Amargosa Farm Road. The facility has been designed to hold 2,900 mature dairy cows and 1,050 dairy heifers in open containment. The dairy buildings, ponds, and animal containment will occupy approximately 67 acres of field #19.

Process wastewater to be generated at the facility includes liquid manure, cow wash water, barn wash water, water from washing the lines and milk storage tanks, precipitation, and runoff. The facility will generate an estimated 1,052 tons of solids and 111.59 million gallons of process wastewater per year. The Applicant has requested a 30-day average flow discharge limitation of 0.310 million gallons per day (MGD). The dairy lagoon/pond system has been designed to contain the maximum normal operating volume of process wastewater, 5 years of sludge accumulation, and the precipitation and runoff from the 25-year, 24-hour storm event, 2.2 inches.

The wash waters will flow from the milking parlor to a concrete sump/sand separator. From the sump, the manure and process wastewater will be pumped through a static screen separator to remove solids prior to discharge to concrete settling chambers for further removal of solids. From the settling chambers, process wastewater flows into the synthetically lined process wastewater lagoon. Bio-stimulators, aerobic microbes, will be added to the pond to facilitate solids decomposition and to reduce odors.

The Applicant proposes to construct a 60-mil HDPE-lined process wastewater lagoon with approximately 20.69 million gallons total capacity. Effluent from the process wastewater lagoon will be used for flood irrigation on approximately 220 acres of cropland on field #19. The effluent will be conveyed via buried pipeline from the dairy lagoon system to field #11 for wheel line irrigation. Runoff from cropland that has had manure and/or process wastewater applied in compliance with an approved NMP are covered by the agricultural stormwater exemption.

The separated solids, manure removed from the corrals, and solids removed during pond cleaning may be applied to the agricultural fields in accordance with the Division approved Nutrient Management Plan (NMP), transported to Ponderosa Dairy, NV0023027, for composting in accordance with that facility's NMP and permit, or

transferred to other parties.

The manure and/or process wastewater application rate shall be determined by the more restrictive of the nitrogen and phosphorus application rates. The Applicant has proposed to cultivate oats and barley as a winter crop and non-nitrogen fixing alfalfa as the summer crop. Preliminary nutrient management data indicates that the proposed cropping pattern will remove approximately 527 pounds of nitrogen per acre per year. Phosphorus data has not yet been submitted to the Division. The NMP will determine the effluent application rate based on the calculated effluent nutrient concentrations.

There are four wells on the field #19 property: an irrigation well, a domestic well, and two irrigation/domestic wells; and two wells, an irrigation well and a domestic well, are located on the field #11 property.

Well Summary

Well Log Number	Casing Diameter (in)	Total Depth (ft)	Static Water Level (ft)
52295	6.6	238	Not reported
6080	16	380	90
52296	14	285	111
91446	6	200	120
4253	12	250	90
6602	6.6	200	168

There are 32 groundwater wells within a one-mile radius of the field #19 property dairy, 50 wells within a one-mile radius of the field #11 property, and an additional 6 wells within a one-mile radius of both sites.

Flow: 0.310 million gallons per day (MGD) – 30-day average
This flow is the discharge of liquid manure, cow wash water, barn wash water, and water from washing the lines and milk storage tanks to the HDPE-lined lagoon. The discharge rate shall be quantified at a flow meter(s) on the pipeline(s) from the process wastewater lagoon to the irrigated fields. All lagoon water will be used for irrigation or evaporate.

The proposed permit will require containment of all runoff of manure and process wastewater in response to storms that do not exceed the 25-year, 24-hour event. The storm discharge flow rate into the lagoon will not be limited by the permit and will be dependent upon the magnitude of the storm event.

Receiving Water Characteristics: The Applicant will use a combination of evaporation and land application to dispose the process wastewater generated by the facility. The Applicant reports that the depth to groundwater at the facility ranges from 90 feet below ground surface (bgs) to 168 feet bgs. Based on limited June 2005 data from four wells, the groundwater beneath the facility has total dissolved solids concentrations ranging from 705 milligrams per liter (mg/L) to 1,124 mg/L, chloride concentrations ranging from 20.3 mg/L to 72.8 mg/L, and nitrate concentrations ranging from 1.80 mg/L to 3.79 mg/L.

The Applicant will be allowed to discharge to surface waters only during storms greater than or equal to the 25-year, 24-hour storm event or after a series of chronic events that exceed the total volume of the 25-year, 24-hour storm event. Any surface water discharge would be to the ephemeral Amargosa River. Due to the transitory nature of the River, there is no monitoring of the stream water quality.

Proposed Effluent Limitations: During the period on the effective date of this permit, and lasting until the permit expires, the Permittee is authorized to discharge manure and process wastewater to land application areas in accordance with a Division approved NMP.

Samples taken in compliance with the monitoring requirements specified below shall be taken from:

a. Manure and process wastewater;

b. Soil from each field eligible for land application of manure and/or process wastewater;

c. Each field that has had manure and/or process wastewater applied; and

d. Flow meter on the discharge line from the process wastewater lagoon.

The discharge shall be limited and monitored by the Permittee as specified in Table I.1.

TABLE I.1

PARAMETERS	EFFLUENT DISCHARGE LIMITATIONS	MONITORING REQUIREMENTS		
		Sample Locations	Measurement Frequency	Sample Type
Flow, 30-day average (MGD)	0.310	d.	Daily	Flow Meter
pH (standard units)	Monitor and Report	a.	Biannually[3]	Discrete
Chlorides (mg/L, mg/kg)[2]	Monitor and Report	a.	Biannually[3]	Composite
Total Dissolved Solids (mg/L, mg/kg)[2]	Monitor and Report	a.	Biannually[3]	Composite
Total Suspended Solids (mg/L)	Monitor and Report	a.	Biannually[3]	Composite
5-day Biological Oxygen Demand (mg/L)	Monitor and Report	a.	Biannually[3]	Composite
Total Nitrogen -N (mg/L, mg/Kg)[2]	Monitor and Report	a.	Biannually[3]	Composite
		b.	(4)	Composite
Total Nitrogen -N Applied (lbs/acre)	See NMP for Annual Limit[7]	c.	Annually[1]	Calculation
Total Kjeldahl Nitrogen – N (mg/L, mg/kg)[2]	Monitor and Report	a.	Biannually[3]	Composite
		b.	(4)	Composite
Nitrate –N (mg/L, mg/kg)[2]	Monitor and Report	a.	Biannually[3]	Composite
		b.	(4)	Composite
Ammonia -N (mg/L, mg/kg)[2]	Monitor and Report	a.	Biannually[3]	Composite
		b.	(4)	Composite
Total Phosphorus -P (mg/L, mg/kg)[2]	Monitor and Report	a.	Biannually[3]	Composite
		b.	(4)	Composite
Total Phosphorus -P Applied (lbs/acre)	See NMP for Annual Limit[7]	c.	Annually[1]	Calculation
Fecal Coliform (CFU or MPN/100 mL)	Monitor and Report	a.	Biannually[3]	Composite
Volume of Manure and/or Process Wastewater[5] (units)	Monitor and Report	a.	Monthly	Estimate
Crop Yield[6] (tons/acre)	Monitor and Report	c.	Annually[1]	Estimate

Notes:

[1]: Annual characterizations shall be conducted in the fourth quarter and reported in the fourth quarter Discharge Monitoring Report (DMR).

[2]: mg/L for liquids, mg/kg for solids.

[3]: Biannual characterizations shall be conducted in the first and third quarters and reported in the appropriate DMR.

[4]: Annually cropped fields shall have soil analyses every three years or when a major change in crop rotation occurs. Perennially cropped fields shall have soil analyses every five years.

[5]: List each type of material land applied separately and include the date of each application for each field.

[6]: If the crop yield is not within 10% of the expected crop yield of the Nutrient Management Plan (NMP), the NMP shall be reviewed and revised as necessary.

[7]: Report the calculated allowable nutrient application rate per the NMP as well as the actual application rate. Include calculations used to determine the total nitrogen and total phosphorus loadings from all sources.

mg/L: Milligram per liter.
gpd: Gallons per day.
-N: As nitrogen.
-P: As phosphorus.
mg/kg: Milligrams per kilogram.
CFU: Colony Forming Unit.
MPN: Most Probable Number.
mL: Milliliter.
NMP: Nutrient Management Plan.
lbs/acre: Pounds per acre.

Rationale for Permit Requirements: Monitoring requirements for the parameters specified in Table I.1: Discharge Limitations are being proposed to ensure that the Applicant has appropriate manure and process wastewater data to comply with the NMP, Part I.A.2., and Manure Transfer Requirements, Part I.A.12., and to determine any potential impact to waters of the State that may occur in response to a discharge.

Schedule of Compliance: The Permittee shall implement and comply with the provisions of the schedule of compliance after approval by the Administrator, including in said implementation and compliance, any additions or modifications that the Administrator may make in approving the schedule of compliance.

a. The Permittee shall achieve compliance with the effluent limitations upon issuance of the permit.

b. Within ninety (90) days of the permit effective date, the Permittee shall submit to the Division for review and approval a NMP prepared in accordance with Natural Resources Conservation Service (NRCS) Conservation Practice Standard Code 590, Nutrient Management, June 2002 or more recent; NRCS Conservation Practice Standard Code 633, Waste Utilization, October 2003 or more recent; and all applicable sections of this permit.

c. Lactating dairy cows shall not be transported to the facility until the Division has approved the NMP and the Permittee is prepared to implement the NMP.

d. Within thirty (30) days of the completion of construction, the Permittee shall submit to the Division a certification stamped by a Nevada licensed Professional Engineer stating that all waste storage facilities at the permitted site were constructed in accordance with NRCS Conservation Practice Standard Code 313, Waste Storage Facility, October 2003 or more recent; or NRCS Conservation Practice Standard Code 359, Waste Treatment Lagoon, October 2003 or more recent, as appropriate, and stamped as-built drawings of the facility.

e. Within ninety (90) days of the permit effective date, the Permittee shall submit to the Division for review and approval an Animal Mortality Management Plan.

f. Lactating dairy cows shall not be transported to the facility until the Division has approved the Animal Mortality Management Plan (AMMP) and the Permittee is prepared to implement the AMMP.

g. At least ninety (90) days prior to the closure of a lagoon, pond, surface impoundment, or other manure or process wastewater storage or treatment facility, the Permittee shall submit to the Division for review and approval a component closure plan or facility closure plan, if operations will cease.

h. At least ninety (90) days prior to the temporary closure of a lagoon, pond, surface impoundment, or other manure or process wastewater storage or treatment facility, the Permittee shall submit to the Division for review and approval a component temporary closure plan or facility temporary closure plan, if operations will temporarily cease.

Proposed Determination: The Division has made the tentative determination to issue the proposed permit for a period of five (5) years.

Procedures for Public Comment: The Notice of the Division's intent to issue a permit authorizing the facility to discharge manure and process wastewater to the groundwater of the State via land application and irrigation is being sent to the **Las Vegas Review-Journal** and the **Pahrump Valley Times** for publication. The notice is being mailed to interested persons on the Division's mailing list. Anyone wishing to comment on the proposed permit can do so in writing for a period of thirty (30) days following the date of publication of the Notice of Proposed Action and Public Hearing in the newspapers. The comment period can be extended at the discretion of the Administrator. The deadline for receipt of all comments pertaining to this proposed permit is 5:00 PM

December 9, 2005.

Due to a significant degree of interest in this proposed project, the Division has scheduled a Public Hearing to gather additional public input regarding the draft permit. The Public Hearing has been scheduled for 6:00 PM December 13, 2005 at the Amargosa Valley Multipurpose Building, 821 E. Amargosa Farm Road, Amargosa Valley, Nevada.

Members of the public wishing to comment upon the proposed permit and/or to recommend terms and conditions for consideration of incorporation in the permit are invited to attend the meeting and provide comments and information that are pertinent to the NPDES Permit. Comments not related to water quality issues cannot be considered. The Division may set a five-minute time limit for oral statements based on the number of people in attendance who would like to comment. Comments and information may be submitted by interested persons through the close of the Public Hearing.

All comments or objections received within the thirty (30) day period or submitted at the Public Hearing will be considered in the formulation of final determinations regarding the application. If the determinations of the Administrator are substantially changed from the tentative determinations, the Administrator will give public notice of the revised determinations. Additional comments and objections will be considered at that time.

The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

Prepared by: Bruce Holmgren
November 2005